

Introduction/Business Problem

The health service in Seattle City want to understand the amount of emergency vehicles and staff they should hire to deal with road traffic accidents. The health service in Seattle City want to know if a model can be used to predict the severity of road traffic accidents. They want to use this model to optimise the number of support vehicles and staff they have to deal with the accidents. This can help the health services of Seattle City optimise their resources and have a better chance of saving lives.

I have researched and found a data set which looks at the volume and severity of road traffic accidents in Seattle City between 2004 and 2020. Using Machine Learning techniques I will build a series of classification models in order to predict the severity of an accident. I will test a series of logistic regression, decision trees and support vector machine models in order to understand which model predicts the severity of an accident most clearly. Understanding the factors which predict the severity of accidents can help the health services of Seattle City plan for accidents more effectively.